



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/769,780	02/03/2004	Michael Westlake	118415	9284
25944	7590	11/10/2005		
OLIFF & BERRIDGE, PLC P.O. BOX 19928 ALEXANDRIA, VA 22320			EXAMINER KIM, TAE JUN	
			ART UNIT	PAPER NUMBER
			3746	
DATE MAILED: 11/10/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

Talk

Office Action Summary	Application No. 10/769,780	Applicant(s) WESTLAKE ET AL.	
	Examiner Ted Kim	Art Unit 3746	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10/14/2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) 11-14 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 and 15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>02/03/2004</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of group I in the reply filed on 10/14/2005 is acknowledged. The traversal is on the ground(s) that applicant believes that search and examination can be made without a serious burden on the Examiner. This is not found persuasive because only the examiner can be the judge of what entails a serious burden and moreover, it is clear that there is an independent search for the method of making claims.

The requirement is still deemed proper and is therefore made FINAL.

Drawings

2. The drawings are objected to because the arrow for A in Fig. 1 is not shown (see page 3, description of Figures 3 and 4). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

3. The disclosure is objected to because of the following informalities: on page 3, lines 6, and page 3, paragraph 4, line 3, "46" should be —4, 6—(compare e.g. with page 3, 3rd paragraph, line 3).

Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

Art Unit: 3746

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claim 15 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 15 merely claims the use but does not add anything to define the metes and bounds of the claims.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1-6, 15 are rejected under 35 U.S.C. 102(b) as being anticipated by the admitted prior art. The admitted prior art teach a combustor for a gas turbine engine comprising a combustion chamber wall 4, 6 having formed therein at least one hole 22 for admitting air into the combustion chamber; at least one air intake chute aligned with said hole; during operation a hoop stress field having regions of high D, E and low B, C stress concentration around said hole; wherein said chute is attached to the combustor wall in a **region** of low stress concentration [in a region allows some latitude as to whether it is at the low stress concentration or not, and the two welds 28 on the right hand side of Fig. 2 are deemed to meet this claim limitation]; wherein the chute is attached to the combustor wall in at least two regions of low stress concentration; wherein areas where the chute is attached to the combustor wall are substantially in the same radial

plane; wherein the areas of attachment are provided on diametrically opposite sides of said chute; wherein the combustor air intake chute is provided with a flange disposed around one end thereof; the flange is circular.

8. Claims 1-6, 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Mazeaud et al (5,524,430). Mazeaud et al teach a combustor for a gas turbine engine comprising a combustion chamber wall 7 having formed therein at least one hole for admitting air into the combustion chamber; at least one air intake chute (unlabeled, between 21, 27) aligned with said hole; during operation a hoop stress field having regions of high and low stress concentration around said hole; wherein said chute is attached to the combustor wall in a region of low stress concentration (dashed lines indicate the connection point is at the upstream location, which is at the same location as disclosed by applicant and thus at the low stress regions); wherein the chute is attached to the combustor wall in at least two regions of low stress concentration; wherein areas where the chute is attached to the combustor wall are substantially in the same radial plane; wherein the areas of attachment are provided on diametrically opposite sides of said chute; wherein the combustor air intake chute is provided with a flange disposed around one end thereof; the flange is circular.

9. Claim 1-6, 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Parker (3,899,882). Parker teaches a combustor for a gas turbine engine comprising a combustion chamber wall having formed therein at least one hole for admitting air into the combustion chamber; at least one air intake chute 60 aligned with said hole; during

Art Unit: 3746

operation a hoop stress field having regions of high and low stress concentration around said hole; wherein said chute is attached to the combustor wall in a region of low stress concentration (left and right welds 69 – see Fig. 3); wherein the chute is attached to the combustor wall in at least two regions of low stress concentration (left and right welds 69); wherein areas where the chute is attached to the combustor wall are substantially in the same radial plane; wherein the areas of attachment are provided on diametrically opposite sides of said chute; wherein the combustor air intake chute is provided with a flange disposed around one end thereof; the flange is circular.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 1-6, 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted prior art or any of the above applied art in view of the admitted prior art and further in view of Goloff et al (4,343,355). The admitted prior art teach the claimed invention except for the welds being located at the low stress concentration points but would teach one of ordinary skill in the art where the location of the low stress concentration is. Goloff et al teach that it is old and well known to those in the welding art to place the welds in region of low stress concentration so that minimum stress occurs

at the weld (col. 6, lines 8-12). It would have been obvious to one of ordinary skill in the art to place the welds at the minimum stress concentration location on diametrically opposite sides of the hole, in order to minimize the stress that occurs at the weld to prolong its life and/or to prevent failure.

12. Claims 7-10, are rejected under 35 U.S.C. 103(a) as being unpatentable over any of the above applied and further in view of any of Irwin (3,886,735), Fucci (4,700,544) and Bolender et al (6,681,577). The above applied art do not teach the use of the tabs projecting from the flange nor their ranges. The use of tabs projecting from the flanges for these types of chutes is well known as evidenced by Irwin, who teaches tabs 38 (see Fig. 4) for the chutes and see also tabs 30 of Fucci for the chute and see the tabs for the boss 18 on the combustor of Bolender et al where the tabs on the bosses reduce the stress concentration (see abstract and Fig. 1). It would have been obvious to one of ordinary skill in the art to employ tabs for the flanges, as taught by any of Irwin, Fucci, and Bolender et al, as an equivalent shape utilized in the art and/or in order to reduce stress concentrations and/or enhance ease of installation and/or in order to facilitate a strong welded connection. As for the claimed ranges, the ranges are deemed an obvious matter of finding the workable ranges in the art. It would have been obvious to one of ordinary skill in the art to employ the claimed ranges as an obvious matter of finding the workable ranges in the art.

Art Unit: 3746

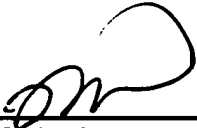
Contact Information

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Ted Kim whose telephone number is 571-272-4829. The Examiner can be reached on regular business hours before 5:00 pm, Monday to Thursday and every other Friday.

The fax numbers for the organization where this application is assigned are 571-273-8300 for Regular faxes and 571-273-8300 for After Final faxes.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Thorpe, can be reached at 571-272-4444.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist of Technology Center 3700, whose telephone number is 703-308-0861. General inquiries can also be directed to the Patents Assistance Center whose telephone number is 800-786-9199. Furthermore, a variety of online resources are available at <http://www.uspto.gov/main/patents.htm>



Ted Kim	Telephone	571-272-4829
Primary Examiner	Fax (Regular)	571-273-8300
November 8, 2005	Fax (After Final)	571-273-8300
Technology Center 3700 Receptionist	Telephone	703-308-0861
Patents Assistance Center	Telephone	800-786-9199